UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

DIGEST
of
National Forest
Protection and Management "P&M"

BUDGET STUDY
of
"July 1949"

October 10, 1949.

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Digest of
"A NATIONAL FOREST BUDGET STUDY"
of "July 1949"

– Purpose –

Part I (A). To determine, as requested by the Budget Bureau, whether national-forest values of all classes are great enough to justify the cost of protecting, managing and developing the national forests (1) at the present level of activities, and (2) at a higher level, as proposed by the Forest Service to increase the production of their timber and other forest products to help meet foreseeable national needs.

Part I (B).(1)Expenditures and (2) All Costs vs. cash receipts – for revenue-producing and commercial forest areas only. This differs from Part I(A) which includes non-cash revenue-producing as well as revenue-producing – commercial – national-forest areas.

Part II. What the Protection and Management "P&M" Appropriation has been buying.

Part III. To develop for the national-forest properties a "performance" type of budget presentation:

(A) A "Performance Budget."

(B) An "Investment Budget," composed of:

(1) An operating budget.

(2) A capital budget.

(3) Statement of assets and liabilities.

There follows a brief over-all picture of the national forests, together with condensed statements of the findings of this study, with regard to each of the above parts. These summaries are in turn followed by more detailed information on which they are based.

(The "X" references are to page numbers of the complete Study-report.)

(OVER)

THE NATIONAL FORESTS

The national forests were established under the basic Acts of June 4, 1897, and the Weeks Law of March 1, 1911, "to improve and protect the forest ... ... or for the purpose of securing favorable conditions of water flows and to furnish a continuous supply of timber for the use and necessities of citizens of the United States, ..."

Under the general administrative policy laid down by the Secretary of Agriculture in his letter to the Forester, dated February 1, 1905, "... all the resources, including water, wood, and forage are for use only under such restrictions as a thorough, prompt, and businesslike administration requires and in a manner that will insure the permanence of the resources and provide the greatest good of the greatest number in the long run." This letter sums up the general policy of multiple use under which the national forests have been managed for more than forty years in the Department of Agriculture.

There are 135 national-forest administrative units. The 180,000,000 acres of national forests are located in 40 states, Alaska, and Puerto Rico. They now have more than one-third of the remaining saw timber in the country. Technical forestry is applied to the growing and harvesting of this and new crops of timber. Estimated harvest through timber sales in 1949 is 4 billion board feet. The grazing of approximately nine million head of livestock is scientifically managed to obtain range conservation along with use of the annual growth of forage. Watersheds are managed for regulation of stream flow, flood control, sources of water for power, irrigation, navigation, and municipal supply. Forest fire protection is a major responsibility. There were 8,345 forest fires in 1948 which burned over 269,491 acres of national-forest area. Receipts from timber sales, grazing permits and other sources will exceed $30,000,000 in 1949.

Some indication of the size of the national-forest operations can also be gained from the fact that there are about 62,000 miles of telephone system built and maintained by the Forest Service. There are about 75,000 miles of forest roads which are maintained and the greater part of which were constructed by the Forest Service. This road mileage is sufficient to go around the world about three times. There are several thousand structural and other improvements for fire detection and other administrative purposes. About one-third of all the big game (70% of all western big game) is found on the national forests, as well as countless numbers of small game, upland birds, and the highly economically important native furbearers. This wildlife resource is managed scientifically to the extent of available funds. There are about 5,000 developed camp, picnic, swimming, and winter-sports areas to partially care for the approximately 40 to 50 million visits of the public to the national forests for recreation purposes each year. There are nearly 50,000 special-use permits in effect on the national forests for summer homesites, pastures, transmission lines, mining, etc.

Through such factors as timber growth, reforestation, revegetation, and the development of roads and other improvements, the present estimated one and one-half billion dollar capital market value of the national-forest system is increasing about 50 to 60 million dollars annually.

Digest of
A NATIONAL FOREST BUDGET STUDY
Part I (A)

Purpose: "To determine whether national forest values, of all classes, are great enough to justify the cost of protecting, managing and developing the national forests (1) at the present level of activities, and (2) at a higher level, as proposed by the Forest Service to increase the production of timber and other forest products from these publicly owned properties - to help meet foreseeable national needs."

The study shows that the answer to these questions is "yes." Annual returns are vastly greater than the present and proposed increased costs. The values have been steadily increasing faster than costs of operation of the national-forest system for the past quarter century. More specifically, on a 1948 basis:

Returns	Annual Values (Millions of Dollars)
1. Monetary returns a/	$ 28.5
2. Non-monetary returns b/	336.7
3. Capital gain of national forests through increased growth and value of timber c/	65.3
Total returns.....	$430.5

Costs	Annual Costs (Millions of Dollars)
1. Operating and maintenance d/	$ 34.9
2. Depreciation, interest, tax equivalent d/	22.7
Total "costs".....	$ 57.6 e/

That shows annual returns over seven times greater than total costs in 1948.

Included in the $57.6 million total costs, above, is the "Protection and Management" appropriation for F.Y. 1948 of $25,200,000.

For 1950f/ the Forest Service would propose an increase in this "P&M" appropriation to $51.8 millions. Together with other funds for roads and trails, tax equivalent, pest control, etc., the grand total of such costs is still very greatly below the total returns of $430.5 millions.

Footnotes (see next page):
Those bald figures raise many questions which are considered on the following pages.

Footnotes (for Part I(A) Digest):

a/ Monetary returns include cash receipts to the Treasury, the value of land received in exchange for timber and acquired with receipts under various laws for those purposes, and collections from private users of the national forests for improvements on the national forests.

b/ Non-monetary returns include the appraised annual value from the water yield and the recreation and wildlife resources of the national forests. It is composed specifically of Recreation and Wildlife, $23.8 million; Water, $312 million; and free permits for timber, grazing, etc., $.9 million.

c/ The net growth of timber on the forests and the long-time rise in stumpage rates (past 15-year average) are the basis for this computation.

d/ Includes the appropriation for P&M, Roads and Trails, Pest Control, 25% funds, etc., depreciation on investments in buildings, roads, camps, etc., plus an interest charge on all investments, viz., land purchase, roads, buildings, plantations, etc.

e/ Does not include the expenditures during the year for capital investments of $14.0 million for road construction, reforestation, revegetation, and other improvements.

f/ This is an estimate of funds needed to do the work reasonably well. It includes for 1950 a timber sale cut of 4.2 billion board feet, planting and reseeding on a 15-year program basis, etc. It is a program designed for eventual production of 10.6 billion board feet annually as the national-forest part of the national timber needs.

Amplification of Part I (A) of the Digest

Determination of Values and Returns

An attempt has been made to determine the annual national-forest revenues and non-monetary returns for the important resources on a comparable basis.

The annual revenue and non-monetary returns might be defined as (a) the amount which the purchasers or users of the different raw products, facilities, privileges, or services, on or from national forests, paid to the United States Treasury in direct cash receipts; or (b) the appraised fair market value which might have been assessed even though no charge was made because of policy or economic and/or legal inability to make such charge. These jointly might be termed the primary annual "severance" and "land rental" returns.

The specific method used in arriving at annual "severance" and "land rental" returns is as follows:

1. Timber Resource - (a) Stumpage receipts, (b) stumpage values exchanged for timber and land under the general Exchange Act, (c) receipts (largely timber) used for land purchase under the various Acts, (d) timber given under Free-Use and Sales-at-Cost regulations, appraised at national-forest commercial rates, and (e) collections under the Knutson-Vandenberg Act for investments in reforestation and timber-stand improvement (also an accrued expense).

2. Range Resource - (a) Receipts from permitted stock, (b) free permits appraised at national-forest commercial rates, and (c) collections under Regulation G-9 for maintenance and construction of grazing improvements (also an accrued expense).

3. Special Land Uses - (a) Receipts from paid Special Uses, and (b) free Special-Use Permits, appraised at national-forest commercial rates.

4. Recreation and Wildlife - The visitor use (camper, hunter, etc.) was taken as the criterion of annual returns. Values per unit of use were determined for each form of use, based on an appraised fair market value for the use privilege. These values are supported by comparative appraisal data to the extent available. The non-monetary returns were obtained by multiplying the unit value by numbers of users in each class. The unit values were corrected over the periods used in the analysis by changes in the B.L.S. all-commodity wholesale index as a criterion of monetary fluctuation. (See attached, page 7, for sample computation.)

5. Water - Two methods were used, and the results therefrom checked out reasonably well: (1) A fairly well distributed sample of 21 national forests was selected on which stream gauge information had been collected for a number of years. Unit water value per acre-foot for the main classes of use was applied. (2) Estimates of total water used nationally were obtained for three primary consumer classes:

(a) hydroelectric power, (b) irrigation, and (c) domestic and other industrial use. From stream gauge data, relationships were developed between total water yield and yield from government-owned lands in national forests. The estimates of volume of water used by the three main classes of use were developed geographically in relation to national-forest areas. Unit acre-foot values were applied to estimated volume of water from national forests used for the three primary consumer classes.

These large water values are subject to losses through improper protection and management of the national-forest watersheds. This loss may take the form of (1) damaging floods, changes in (2) quantity and (3) quality of water delivered, (4) siltation and (5) sedimentation, (6) lowered ground water levels, and (7) changes in periods of delivery. It results in the loss of an (a) irreplaceable soil resource together with the damage to the (b) irrigation, (c) power, (d) industrial and (e) domestic economy which is dependent upon it. As the water values are based on water use, an increased use means an increase in damage potentials. For example, an increased use of water for hydroelectric power means an increase in the siltation damage to the reservoirs.

6. Other Values - The evaluation is not intended to be all-inclusive for the national-forest system. The key resources were appraised. There are other values which were not appraised in monetary terms. Examples of some of these are the values accruing to owners of hotels and resorts and their guests on privately owned lands because of the surrounding national forests, the annual berry crop on the forests, the scenic value of the national forests to the 18 million visitors annually who merely pass through them, and virgin forest areas set aside to preserve natural flora and fauna conditions. This concept of annual value also omits the benefits to society in having the raw materials and other privileges or services available.

SAMPLE COMPUTATION OF A NON-MONETARY RETURN
Value of Recreation and Wildlife Use of the National Forests, F.Y. 1947
(Composite of Regional Appraisals)

Type of Use	Unit	Number	Unit Value	Total Value
*Recreation Use				
Campers	Man-days	7,954,746	$ .382	$ 3,042,385
Picnickers	Visits	4,458,748	.134	599,427
Organization Camps	Man-days	2,702,643	.219	591,451
Winter Sports	Visits	1,249,200	.411	513,006
Wilderness Area	Man-days	406,368	1.015	412,395
Other Forest Areas	Man-days	10,369,794	.122	1,267,780
Total, Recreation Use				$ 6,426,444
Wildlife Use				
Big Game Hunters	No. Users	975,183	$5.38	$ 5,246,265
Small Game Hunters	No. Users	410,845	1.98	814,660
Fishermen	No. Users	2,720,395	2.50	6,804,975
Trappers	No. Users	68,307	5.64	385,435
Total, Wildlife Use (Annual "Return")				$13,251,335
Total, Recreation and Wildlife Use				$19,677,779

*The number of visitors is both a work-load factor to which financial requirements can be related and a measure of changes in annual value of this resource to the public.

If expenditures by the recreation visitors and sportsmen for gasoline, ammunition, sports equipment, food, etc., are taken as a measure of annual value, then the 1947 value is estimated at $295,000,000 rather than the much lower $19,677,779 figure. The recreational opportunities of the national forests were sufficiently attractive to induce that expenditure by the users in order to enjoy the benefits. However, the lower figure has been used in this study.

Digest of
A NATIONAL FOREST BUDGET STUDY
Part I (B) (1)

Protection and Management Appropriation Cash "Expenditures" Vs. Cash or Equivalent Receipts

For only those lands which are revenue-producing or are potentially so.

	1947	Estimated 1949
	(Millions of Dollars)	
I. On Revenue-Producing Lands — Of all classes including ranges.		
A. Revenues. Cash or equivalent (a).....	20.5	32.0
*B. Expenditures. P&M appropriation only (b)..	17.8	19.9
Note - - - Net Surplus Revenue over expenditures.....	2.7	12.1
II. On Commercial and Potentially Commercial Timber Lands Only:		
A. Revenues. Cash or equivalent (a).....	18.2	29.0
*B. Expenditures. P&M appropriation only (b)..	13.3	15.4
Note - - - Net Surplus Revenue over expenditures.....	4.9	13.6

Footnotes:

(a) "Revenues - cash or equivalent." This includes miscellaneous receipts, collections from Controverted lands, Interior collections for water power and minerals, Alaska special account, land-for-timber exchange values, and Receipts Acts Purchase values.

(b) "Expenditures. P&M appropriation only" - less expenditures for Recreation and Wildlife and Capital Investments in Reforestation and Revegetation.

*Excludes expenditures from other appropriations, depreciation, 25% receipts payments in lieu of taxes.

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Digest of
A NATIONAL FOREST BUDGET STUDY
Part I (B) (2)

All "Costs" Vs. Cash or Equivalent Receipts

For only those lands which are commercial or potentially commercial timberlands.

	1947	Estimated 1949
	(Millions of Dollars)	
Commercial and Potentially Commercial Timber Lands Only:		
A. Revenues. Cash or equivalent (a)	18.2	29.0
Sale Area Betterment	1.1	2.0
Total Revenue (b)	19.3	31.0
B. (1) Costs - O.&M. (all appropriations) (c)	13.8	15.9
(2) Depreciation (d). (Structural improvements)	1.5	1.5
(3) 25% Receipts payment. (50% charged to timber)	2.0	3.5
Total Costs	17.3	20.9
Note - C. Net Surplus - revenue over total costs	2.0	10.1

Footnotes:

(a) "Revenues - cash or equivalent." This includes miscellaneous receipts, collections from Controverted lands, Interior collections for water power and minerals, Alaska special account, land-for-timber exchange values, and Receipts Acts Purchase values.

(b) Revenues exclude capital gain in increased asset values due to increased timber growth and inventory values of $36.9 million in 1947.

(c) "Costs - O.&M." = Operation and Maintenance - includes 50% Fire expenditures, 50% Road and Trail expenditures; excludes Recreation and Wildlife expenditures and capital investments in Roads, Reforestation, Revegetation, etc., and 50% of fire expenditures including F.F. and 50% of Road and Trail expenditures charged to other than timber.

(d) 50% of the 25% payment in lieu of taxes charged to other than timber.

Amplification of Part I (B) of the Digest

Expenditures and Total Costs Vs. Cash Receipts as related only to:

1. Revenue-producing areas - of all classes, including ranges; and
2. Commercial (including potentially commercial) timber areas only.

(That excludes great areas of non-revenue-producing and non-commercial forest lands.)

The classification of national-forest acreage into major revenue- and non-revenue-producing classes follows. (Revenue-producing lands are defined as those areas from which receipts are currently being received, or from which receipts are likely to be derived in the future.)

	Acres (Thousands)	Percent
1. Revenue-producing lands		
a. Commercial timberland or land potentially capable of producing a commercial forest crop..... (about 90% of receipts from this area)	78,453	44
b. Range lands not duplicated in commercial forest.....	49,762	28
c. Range lands duplicated in commercial forest.....	(31,552)	
d. Special land rental areas.....	1,318	
Total revenue-producing lands.....	129,533	72
2. Non-revenue-producing lands.....	49,221	28
Grand total.....	178,754	100

It is important to keep in mind in an analysis of the self-supporting possibilities of the national-forest system that the major part of the receipts come from the timber business on a relatively small part of the total acreage. Thus, in fiscal year 1948, about 90% of total miscellaneous cash receipts (in timber sales collections) came from the 44% of the area of the national forest which is commercial timberland.

A comparison of the "P&M" appropriation expenditures by forests with miscellaneous receipts collections shows that there were 26 forests in 1937, 41 in 1942, 49 in 1947, and 52 in 1948 in which receipts exceeded "P&M" expenditures This is out of a total of 135 national-forest administrative units.

With about one-third of the remaining saw timber on the national forests, it is logical to assume that the present approximately 11% of national saw-timber production which comes from the national forests will be increased considerably in the future.

To sum up the expenditure-cash receipt relationship: The receipts from the commercial timberlands of the national forests are carrying all legitimate costs that the average owners of private forest properties have to bear, and in addition are yielding a net surplus.

By the nature of their locations in the more inaccessible parts of the country, the inclusion of a relatively greater percentage of less productive forest lands of slower growth, and the acquisition of large acreages of cut-over, burned-over, wrecked, and denuded lands - more of which should come into public ownership - the presently productive lands will be subsidizing the remainder for several decades so far as cash receipts are concerned.

It is certain that with the necessary protection and other costs which the national-forest system bears, every effort should be made to promote and expand the timber sales business to as near full capacity as possible. Whether one is looking at it from a strict cash receipt-cost relationship or from the broader aspects of public purpose, the answer is the same.

This subject is discussed further in Part III - The Budgets.

Part II - Digest - What the "P&M" Appropriation Has Been Buying

Analyses were made of the increases received in the Protection and Management appropriation over the past twenty years to determine the extent to which they had been justified by (1) an increased volume of business, (2) the prevention of damage to the national-forest resources, and (3) the adequacy of developmental programs to meet future national resource requirements. The P&M appropriation was divided into the above three categories and the results of the separate analyses are as follows:

1. The average operating expenditures in 1927-1931 in this category were $3.5 million. The average expenditures in 1942-1947 were $8.0 million. It was $11.5 million in 1948. The expenditure relationship with the value of the volume of business has changed from 33.8% in 1927-1931 to 28% in 1942-1947 and to 21.6% in 1948. Thus the volume of business with the public in timber sales, recreational use, etc., has been handled for an increasingly smaller part of its value. The miscellaneous cash receipts to the Treasury increased from an average $5.7 million in 1927-1931 (the highest economic level prior to the present period) to a $12.6 million average in 1942-1947. It was $24.2 million in 1948 and is estimated at $30.0 million for 1949.

2. The protection expenditures (largely fire control) increased from an average of $4.0 million in 1927-1931 to an average of $8.7 million in 1942-1947 period. It was $10.9 million in 1948. Due to reduction in acreage burned, and in fires prevented, the annual tangible savings in fire suppression costs, timber destroyed, and in reforestation of burned-over areas is at present approximately $20 million. This omits consideration of more intangible losses which from the evidence appear to greatly exceed the tangible savings. Due to increases in salary, overtime, and other costs, the effective operating level is now considerably below the 1947 level.

3. The capital investments for production development increased from an average of $0.3 million in 1927-1931 to an average of $0.6 million in 1942-1947. It was $1.9 million in 1948. This is far below the program needs to reach the goal of 10.6 billion board feet for the national forest share of the estimated future 72 billion board feet national requirement. It is below the needs for revegetating the range lands for the 15-year program.

Note: While the Budget Bureau suggested the establishment of ratios between the total P&M appropriation and revenues, we believe that there can be no logical relationship between them. The analyses which show (a) 90% of the receipts coming from less than 44% of the area, (b) the fluctuation of receipts with economic conditions, (c) the dependence of adequate fire protection and development programs on long-range resource requirements, and (d) the financial needs for important, non-revenue resource programs which do not depend on receipts for their justifiable operating level, all point up the dangers and inadvisability of attempting to tie total operating needs into any kind of a ratio with cash revenues.

Part III - Digest - To Develop for the National Forests A "Performance" Type of Budget Presentation

Part III (A) - A "Performance Budget"

The Forest Service has at various times over the past 15 years worked on developing different types of budgets which would give a clearer picture to the public and reviewing officials of the expenditures, true costs, and the full returns from the national forests. Some of the earlier 1938 efforts on the "Investment Budget" were published by the Harvard Graduate School of Public Administration in "Public Policy, Volume II" (pages 63-77). 1941.

The Hoover Commission Report, "Budgeting and Accounting," includes (pages 82-84) a "Suggested Set-up under a Performance Budget" for "I. The National Forests." That budget has two subdivisions:

	1949-1950 Figures
A. Protection and Management	$42,983,650
B. Capital Investments and Improvements	7,158,350
Grand Total - National Forests	$50,142,060*

There are 16 activity break-downs shown under those two major categories.

Senate Joint Resolution 151 (see S. Doc. No. 4 - Activities of the Senate Committee on Expenditures in the Executive Departments - 80th Congress) would "provide in the federal budget a segregation of capital, developmental and recoverable expenditures, and a six-year program for such expenditures." This Resolution was tabled, pending completion of a study by the Budget Bureau and the G.A.O. on federal accounting. Meanwhile, this is further indication of the definite trend toward adoption of budget presentations of this general type.

The Forest Service feels that the above-mentioned Hoover Commission budget proposal is a major step in the direction we have long advocated. However, we believe it can be improved upon by certain modifications which will simplify review and aid materially in achieving a balanced land management program.

For example, national-forest funds might be grouped into one appropriation but with three major categories, instead of two, as above. That is because there are three major "primary purposes" for which national-forest expenditures are made. These are for (1) "operating," i.e., handling the volume of timber sales, recreation use, and other business on the forests;

*Exclusive of FFF (Fire Fighting Deficiency Appropriation).

(2) protecting the national forests from fire, insects, and other damages; and (3) capital improvements for increasing the productive capacity of these public properties. Under this set-up, the present subdivisions of the Protection and Management appropriation would be reduced somewhat in number. The attached National Forest Performance Budget illustrates this approach.

Note: The accompanying Part III (B) - Digest - "An Investment Budget" - is more nearly adequate in showing depreciation, interest, and total asset values. It thus comes closer to being a true business-type performance budget. While the Hoover Commission recommended an extension of business-type budgets to government operations, it did not present the National Forest Budget in that form. The following "Performance Budget" presentation, instead of the "Investment Budget" is, therefore, in line with the form commonly thought of in connection with the manner in which most federal appropriations are now made and accounted for.

A National Forest "Performance Budget"

Part III (A)

Showing how the present several appropriations might be consolidated into a single "National Forest Appropriation" 1/

	F.Y. 1949 Other Appro.	F.Y. 1949 P&M Appro.	Needs, F.Y. 1950 P&M Appro. only
	(In millions of dollars)		
A. Appropriations (combined into one)			
Primary Purpose Projects I, II & III			
I. Operating (incl.improvements).....		$12.6 (Lump sum)	$18.6
Subprojects: a. Timber Use	—	(9.0)	
b. Recreation & Wildlife Use	—	(4.3)	
c. Range Use	—	(3.6)	
d. Land Use & Exchange	—	(1.7)	
II. Protection (incl.improvements)...		11.7 (Lump sum)	19.0
Subprojects: a. Fire Control 2/	—	(17.4)	
b. Watershed Protection	—	(1.6)	
c. Unit Management—may segregate			
d. Pest Control, Blister Rust, Insects, etc. 2/	$2.1	—	—
e. For.Dev. Roads & Trail mtce.	8.0	—	—
f. Flood Control (1) Works of Improvement, and (2) Land Treatment measures.....	1.1	—	—
III. Capital Investment for Production Development.....		2.4 (Lump sum)	15.4
Subprojects: a. Reforestation	—	7.3	
b. Revegetation	—	2.6	
c. Timber Stand Improvement	—	3.0	
d. Aerial Mapping	—	2.5	
e. Land Acquisition	.5	—	
f. F.D.Rd.& Tr.Cons't (reg.)	1.8	—	
g. F.D.Rd.& Tr.Cons't (10%)	2.4	—	
Sub-total	4.7	2.4	
IV. Payments to States for Schools & Roads (25% Receipts appro.).....	6.1	—	—
Total	22.0	26.7	
Grand Total - All Appropriations.....		48.7	53.0

B. Returns (In millions of dollars)

1. Cash receipts.....	30.0 (Est.1949)
2. Increase in Asset Values.....	70.1 (F.Y. 1948 data)
3. Appraised non-monetary returns	336.7 (F.Y. 1948 data)
Grand Total - all Returns.....	$436.8

Footnotes (see next page)

Footnotes (for page 15):

1/ Exclusive of Cooperative Work - Trust fund expenditures by F.S.
2/ Exclusive of Deficiency Appropriation for fire suppression and Insect Epidemics.

Basis for Estimates in Preceding Table of P&M Needs

I. Operating

The amounts required to handle current volumes of business as determined by work-load studies.

II. Protection

Estimates are based on administratively coordinated analyses and surveys by the responsible authorities in each field. On further consideration "Unit Management" - Rangers, etc. - should probably continue to be segregated, but as a subproject.

III. Capital Investments for Production Development

The program estimates are based on the reforestation 15-year plan and other resource capital investment needs for the national forests to produce their share of the future national timber production goal (72 billion B.F., of which 10.6 billion board feet is the national-forest "share"). It includes a 15-year range revegetation program.

Part III (B) - Digest - An Investment Budget (See Following Tables)

At present the budget for the national forests is made up of an unsegregated mixture of recurrent operating costs and capital investments. No business concern operates on such a basis. It obscures true costs because it fails to disclose such important items of cost as depreciation, interest, and taxes. It fails further to distinguish:

a. Current operating costs (such as fire protection and maintenance of improvements), from

b. Capital investments (such as road construction and reforestation), the life and value of which extend far beyond the current year expenditures. Nor does the present Budget show the current worth of the national-forest assets, such as the standing timber, the land, etc., and the value changes which occur yearly, such as the timber growth. Finally, it fails to provide for the stockholders (the public) a comparison of true costs with returns to the public; i.e., what the appropriations are buying.

Consequently, in order to present a clearer picture, an "Investment Budget" has been prepared for the national-forest properties. This is composed of:

I. "Operating Budget" - A "Profit and Loss" statement. This is shown on the attached Table I. Listed here are all "(A) Receipts," both cash and non-monetary returns to the public - such as water yield and recreation resource use. Also listed here are all "(B) Expenditures," including administration, maintenance, depreciation, tax equivalent and interest. In summary, this shows for 1948, total "Receipts" (monetary plus non-monetary) of $377,700,000 and total "Costs" of all classes of $57,600,000.

II. "Capital Budget" - As shown on attached Table II, this lists the capital investments made each year for land, timber, road and building construction, reforestation, etc. Also listed here is depreciation. In addition, the increased value of the timber in growth and inventory ~~revolution~~ during the preceding year is shown as a capital account. The annual changes shown here in the current value of the assets are also shown in the "Operating Budget" - as a "receipt" to the extent they have increased in value; or an "expenditure" to the extent they have decreased in value. For example, in the "1948" column of the Capital Budget the 64.9 million dollars of net added timber values is also carried in the Operating Budget as a "receipt" - and the "10.6" million dollars "depreciation" charge is also carried in the Operating Budget as an "expenditure." Shown also in Table II is the "Total difference in the value of assets each year - the portion of each year's appropriation which is secured by the net increase in asset values." This, as shown, amounts to $70.1 million for 1948.

III. A Statement of "Assets and Liabilities." This "Table III" shows for each class of asset (land, timber, etc.) the value at the beginning of each year, the changes in value during the year and the resulting value at the end of each year. This increase in asset values provides the security back of and determines the amount of the "Appropriation for Investment" in A. 2. of the attached "II - Capital Budget."

IV. The recapitulation "Account with Treasury." Table IV. This lists the appropriation items from the preceding tables "I - Operating" and "II - Capital" budgets, and their tie-in with net annual appropriations. ("Net" = difference between cash receipts and expenditures.) The extensive non-monetary returns (Table I) are not reflected in these figures. This table shows that if the national forests were operating as a corporation, they would have needed an appropriation for F.Y. 1948 of $28.3 million. This amount is more than secured by the increase of $70.1 million in asset values that year. The (additional) $336.7 million non-monetary returns to the public is, of course, a net gain to the public as all the costs in their protection and management have been more than offset by the increased capital gain of the timber asset.

Note: The "Investment Budget" discussed above and depicted in attached Charts I to IV would be a businesslike form of budget if the national forests were operated as a corporation. It is not usable for that purpose under the present appropriation structure. It should be of value, however, in giving a clearer presentation (in the printed Budget or otherwise) of what the appropriations for the national forests are buying in monetary returns, in public service, in terms of evaluated non-monetary returns, and in increased asset values.

Digest - Recapitulation
U. S. Forest Service Investment Budget
(National Forests) 1/

Table I. Operating Budget (Profit & Loss Statement)	F. Y. 1948 Millions of dollars	
A. Receipts		
1. Cash from public		
(a) Sales of timber	22.9	
(b) Other cash collections	4.4	
Sub-total		27.3
2. Payments for capital accretions (see II B2(a))		
(a) Timber added to capital (net)	64.9	
(b) Timber exchanged for land	1.2	
Sub-total		66.1
3. Non-monetary returns received by the public		
(a) Water yield, recreation resource use, other free permits (Contra below, B-4)		336.7
Total monetary plus non-monetary returns		430.1
4. Appropriations		
(a) Operating expense: B1 - (A1 + A2)	..	
(b) Interest factor	6.0	
Sub-total		6.0
Grand Total Receipts		436.1
B. Expenditures		
1. Operation		
(a) Administration and maintenance, fire, timber, roads, etc.	34.9	
(b) 25% tax-equivalent	6.1	
(c) Depreciation, to capital account	10.6	
Sub-total		51.6
2. Surplus - to Treasury ((A1 + A2) - (B1 + B3))		41.8
3. Interest factor - to Treasury		6.0
4. Donations to public		
(a) Water yield, recreation resource use, other free permits (Contra above, A-3)		336.7
Grand Total Expenditures		436.1

1/ The only cooperative work appropriations included in the budgets are for Sale Area Betterment and Range Improvements. Research appropriations are excluded.

All other appropriation expenditures, including 100% Roads and Trails (exclusive of Forest Highways), Flood Control, Blister Rust, Pest Control, etc., expended on National Forests, irrespective of whether a Forest Service appropriation, are included.

Tabulations on which much of the above is based are attached.

Table II. Capital Budget Statement	F. Y. 1948 Millions of dollars	
A. Receipts		
1. Payments from Operating Budget.		
(a) Depreciation	10.6	
2. *Appropriation for investment, III-E	70.1	
Total Receipts		80.7
B. Disbursements		
1. To public and employees		
(a) Purchase of land	.7	
(b) Purchase of stumpage	.4	
(c) Resource improvements, gross	5.0	
(d) Facilitating improvements, gross (roads, structures, etc.)	8.5	
Sub-total		14.6
2. To Operating Budget		
(a) For timber value added to capital	64.9	
(b) For timber to exchange for land	1.2	
Sub-total		66.1
Total Disbursements		80.7
Total new investment		
Income and transfers (depreciation)		10.6
*Net Investment by U. S. Treasury - Appropriation		70.1

*Equivalent to total increase in value of assets each year. This is the portion of each year's appropriation which is secured by net increase in asset values. It is capital gain.

Table III. Assets and Liabilities	1947	Minus	Plus	Net Change	1948
	Millions of dollars				
Fixed Capital					
A. Land only	266.1				
Purchase			.7		
Exchange for timber (received)			1.2		
Net addition				1.9	
Total					268.0
Inventory					
B. Stumpage	842.2				
Sales and donations		22.9			
Exchanged for land		1.2			
Increase in value, inventory and growth (est.)			89.0		
Purchase			.4		
Net addition to value				65.3	
Total					907.5
C. Resource Improvements: Reforestation, T.S.I., Revegetation, etc.	55.7				
Amortization (Blister Rust Control)		.4			
New addition			5.0		
Net addition or decrease				4.6	
Total remaining value					60.3
D. Improvements, facilitating:					
Buildings, roads, etc.	209.0				
Depreciation		10.2			
New construction			8.5		
Net addition or decrease				-1.7	
Total depreciated value					207.3
TOTAL ASSETS	1,373.0				1,443.1
E. *Total addition - Appropriation for Investment				70.1	

*See footnote Table II.

Table IV. Account with Treasury (Recapitulation):#	F. Y. 1948 Millions of dollars	
Credit:		
Table I A4. Appropriation for operating	6.0	
Table II A2. Appropriation for investment	70.1	
Gross total	76.1	
Debit:		
Table I B2. Surplus to Treasury	41.8	
Table I B3. Interest factor to Treasury	6.0	
*Net cash from Treasury	28.3	
Allocations (of above Appropriations)		
Operating Account, appropriation	6.0	
Less interest factor	6.0	
Net cash		..
Investment Account, appropriation		70.1
Less surplus to Treasury		41.8
*Total Net Cash, Operating and Investment Account		28.3

#Recapitulation of Appropriation items from the "I Operating" and "II Capital Budgets" and their tie-in with net annual appropriations - in excess of cash receipts. (Non-monetary returns not reflected in this table.

*Net cash from Treasury is equivalent to expenditures (including the 25% tax equivalent) less interest and depreciation, minus cash receipts.